

Projected employment growth varies by industry. For example, employment of advertising, marketing, and public relations managers is expected to grow much faster than average in most business services industries, such as computer and data processing, and in management and public relations firms, while little or no change is projected in manufacturing industries.

### Earnings

Median annual earnings of advertising, marketing, promotions, public relations, and sales managers in 1998 were \$57,300. The middle 50 percent earned between \$38,230 and \$84,950 a year. The lowest 10 percent earned less than \$28,190 and the highest 10 percent earned more than \$116,160 a year. Median annual earnings in the industries employing the largest number of advertising, marketing, promotions, public relations, and sales managers in 1997 were as follows:

Professional and commercial equipment .....	\$69,800
Telephone communications .....	64,100
Computer and data processing services .....	60,800
Advertising .....	54,300
Management and public relations .....	51,100

According to a National Association of Colleges and Employers survey, starting salaries for marketing majors graduating in 1999 averaged about \$31,900; advertising majors, about \$26,600.

Salary levels vary substantially depending upon the level of managerial responsibility, length of service, education, firm size, location, and industry. For example, manufacturing firms usually pay advertising, marketing, and public relations managers higher salaries than nonmanufacturing firms do. For sales managers, the size of their sales territory is another important determinant of salary. Many managers earn bonuses equal to 10 percent or more of their salaries.

### Related Occupations

Advertising, marketing, and public relations managers direct the sale of products and services offered by their firms and the communication of information about their firms' activities. Other personnel involved with advertising, marketing, and public relations include art directors, artists and commercial artists, copy chiefs, copywriters, writers and editors, lobbyists, marketing research analysts, public relations specialists, promotion specialists, and sales representatives.

### Sources of Additional Information

For information about careers and certification in sales and marketing, contact:

☛ Sales and Marketing Executives International, 5500 Interstate North Pkwy., No. 545, Atlanta, GA 30328-4662.

Internet: <http://www.smei.org>

For information about careers in advertising management, contact:

☛ American Association of Advertising Agencies, 405 Lexington Ave., New York, NY 10174-1801. Internet: <http://www.aaaa.org>

☛ American Advertising Federation, Education Services Department, 1101 Vermont Ave. NW., Suite 500, Washington, DC 20005.

Internet: <http://www.aaf.org>

Information about careers and certification in public relations management is available from:

☛ Public Relations Society of America, 33 Irving Place, New York, NY 10003-2376. Internet: <http://www.prsa.org>

## Budget Analysts

(O\*NET 21117)

### Significant Points

- One out of 3 budget analysts work in Federal, State, and local governments.

- A bachelor's degree generally is the minimum educational requirement; however, some employers require a master's degree.
- Competition for jobs should remain keen due to the substantial number of qualified applicants; those with a master's degree should have the best job prospects.

### Nature of the Work

Deciding how to distribute limited financial resources efficiently is an important challenge in all organizations. In most large and complex organizations, this task would be nearly impossible were it not for budget analysts. These professionals play the primary role in the development, analysis, and execution of budgets, which are used to allocate current resources and estimate future requirements. Without effective analysis and feedback about budgetary problems, many private and public organizations could become bankrupt.

Budget analysts can be found in private industry, nonprofit organizations, and the public sector. In private sector firms, a budget analyst examines, analyzes, and seeks new ways to improve efficiency and increase profits. Although analysts working in nonprofit and governmental organizations usually are not concerned with profits, they still try to find the most efficient distribution of funds and other resources among various departments and programs.

Budget analysts have many responsibilities in these organizations, but their primary task is providing advice and technical assistance in the preparation of annual budgets. At the beginning of each budget cycle, managers and department heads submit proposed operating and financial plans to budget analysts for review. These plans outline expected programs, including proposed program increases and new initiatives; estimated costs and expenses; and capital expenditures needed to finance these programs.

Analysts examine the budget estimates or proposals for completeness, accuracy, and conformance with established procedures, regulations, and organizational objectives. Sometimes, they employ cost-benefit analysis to review financial requests, assess program trade-offs, and explore alternative funding methods. They also examine past and current budgets and research economic and financial developments that affect the organization's spending. This process enables analysts to evaluate proposals in terms of the organization's priorities and financial resources.

After this initial review process, budget analysts consolidate the individual departmental budgets into operating and capital budget summaries. These summaries contain comments and supporting statements that support or argue against funding requests. Budget summaries are then submitted to senior management, or as is often the case in local and State governments, to appointed or elected officials. Budget analysts then help the chief operating officer, agency head, or other top managers analyze the proposed plan and devise possible alternatives if the projected results are unsatisfactory. The final decision to approve the budget, however, is usually made by the organization head in a private firm or elected officials in government, such as the State legislative body.

Throughout the remainder of the year, analysts periodically monitor the budget by reviewing reports and accounting records to determine if allocated funds have been spent as specified. If deviations appear between the approved budget and actual performance, budget analysts may write a report explaining the causes of the variations along with recommendations for new or revised budget procedures. In order to avoid or alleviate deficits, they may recommend program cuts or reallocation of excess funds. They also inform program managers and others within their organization of the status and availability of funds in different budget accounts. Before any changes are made to an existing program or a new one is implemented, a budget analyst assesses its efficiency and effectiveness. Analysts also may be involved in long-range planning activities such as projecting future budget needs.

The budget analyst's role has broadened as limited funding has led to downsizing and restructuring throughout private industry



*Budget analysts examine budget proposals for completeness, accuracy, and conformance with established procedures.*

and government. Not only do they develop guidelines and policies governing the formulation and maintenance of the budget, but they also measure organizational performance, assess the effect of various programs and policies on the budget, and help draft budget-related legislation. In addition, budget analysts sometimes conduct training sessions for company or government agency personnel regarding new budget procedures.

### **Working Conditions**

Budget analysts usually work in a comfortable office setting. Long hours are common among these workers, especially during the initial development and mid-year and final reviews of budgets. The pressure of deadlines and tight work schedules during these periods can be extremely stressful, and analysts are usually required to work more than the routine 40 hours a week.

Budget analysts spend the majority of their time working independently, compiling and analyzing data and preparing budget proposals. Nevertheless, their schedule is sometimes interrupted by special budget requests, meetings, and training sessions. Some budget analysts travel to obtain budget details and explanations of various programs from coworkers, or to personally observe funding allocation.

### **Employment**

Budget analysts held about 59,000 jobs throughout private industry and government in 1998. Federal, State, and local governments are major employers, accounting for one-third of all budget analyst jobs. The Department of Defense employed 7 of every 10 budget analysts

working for the Federal Government. Other major employers include schools, hospitals, and banks.

### **Training, Other Qualifications, and Advancement**

Private firms and government agencies generally require candidates for budget analyst positions to have at least a bachelor's degree. Within the Federal Government, a bachelor's degree in any field is sufficient for an entry-level budget analyst position. State and local governments have varying requirements, but a bachelor's degree in one of many areas—accounting, finance, business or public administration, economics, political science, statistics, or a social science such as sociology—may qualify one for entry into the occupation. Sometimes, a field closely related to the employing industry or organization, such as engineering, may be preferred. An increasing number of States and other employers require a candidate to possess a master's degree to ensure adequate analytical and communication skills. Some firms prefer candidates with backgrounds in business because business courses emphasize quantitative and analytical skills. Occasionally, budget and financial experience can be substituted for formal education.

Because developing a budget involves manipulating numbers and requires strong analytical skills, courses in statistics or accounting are helpful, regardless of the prospective budget analyst's major field of study. Financial analysis is automated in almost every organization, and therefore familiarity with word processing and the financial software packages used in budget analysis is often required. Software packages commonly used by budget analysts include electronic spreadsheets and database and graphics software. Employers usually prefer job candidates who already possess these computer skills.

In addition to analytical and computer skills, those seeking a career as a budget analyst must also be able to work under strict time constraints. Strong oral and written communication skills are essential for analysts because they must prepare, present, and defend budget proposals to decision makers.

Entry-level budget analysts may receive some formal training when they begin their jobs, but most employers feel that the best training is obtained by working through one complete budget cycle. During the cycle, which is typically one year, analysts become familiar with the various steps involved in the budgeting process. The Federal Government, on the other hand, offers extensive on-the-job and classroom training for entry-level trainees. In addition to on-the-job training, budget analysts are encouraged to participate in the various classes offered throughout their careers.

Budget analysts start their careers with limited responsibilities. In the Federal Government, for example, beginning budget analysts compare projected costs with prior expenditures; consolidate and enter data prepared by others; and assist higher grade analysts by doing research. As analysts progress, they begin to develop and formulate budget estimates and justification statements; perform in-depth analyses of budget requests; write statements supporting funding requests; advise program managers and others on the status and availability of funds in different budget activities; and present and defend budget proposals to senior managers.

Beginning analysts usually work under close supervision. Capable entry-level analysts can be promoted into intermediate level positions within 1 to 2 years, and then into senior positions within a few more years. Progressing to a higher level means added budgetary responsibility and can lead to a supervisory role. Because of the importance and high visibility of their jobs, senior budget analysts are prime candidates for promotion to management positions in various parts of the organization.

### **Job Outlook**

Employment of budget analysts is expected to grow about as fast as the average for all occupations through 2008. Employment growth will be driven by the continuing demand of the Nation's public and private sector organizations for sound financial analysis. In addition to employment growth, many job openings will result from the need to replace experienced budget analysts who transfer to other occupations or leave the labor force.

Despite the increase in demand for budget analysts, competition for jobs should remain keen due to the substantial number of qualified applicants. Candidates with a master's degree should have the best job opportunities. Familiarity with computer financial software packages should also enhance a jobseeker's employment prospects in this field.

Expanding automation is playing a complex role in the job outlook for budget analysts. Computers allow budget analysts to process more data in less time, enabling them to be more productive. However, because analysts now have a greater supply of data available to them, their jobs are becoming more complicated. In addition, as businesses become increasingly complex and specialization within organizations becomes more common, planning and financial control increasingly demand attention. These factors should offset any adverse computer-induced effects on employment of budget analysts.

In coming years, companies will continue to rely heavily on budget analysts to examine, analyze, and develop budgets. Because the financial analysis performed by budget analysts is an important function in every large organization, the employment of budget analysts has remained relatively unaffected by downsizing in the Nation's workplaces. In addition, because financial and budget reports must be completed during periods of economic growth and slowdowns, budget analysts usually are less subject to layoffs during economic downturns than many other workers.

### Earnings

Salaries of budget analysts vary widely by experience, education, and employer. Median annual earnings of budget analysts in 1998 were \$44,950. The middle 50 percent earned between \$36,190 and \$61,410. The lowest 10 percent earned less than \$30,000 and the highest 10 percent earned more than \$81,160.

According to a survey conducted by Robert Half International, a staffing services firm specializing in accounting and finance, starting salaries of budget and other financial analysts in small firms ranged from \$27,000 to \$30,500 in 1998; in large organizations, from \$29,500 to \$33,750. In small firms, analysts with 1 to 3 years of experience earned from \$30,750 to \$36,750; in large companies, from \$34,000 to \$44,750. Senior analysts in small firms earned from \$36,500 to \$42,000; in large firms, from \$41,750 to \$53,750. Earnings of managers in this field ranged from \$42,750 to \$54,750 a year in small firms, while managers in large organizations earned between \$51,750 and \$69,500.

In the Federal Government, budget analysts usually started as trainees earning \$20,600 or \$25,500 a year in 1999. Candidates with a master's degree might begin at \$31,200. Beginning salaries were slightly higher in selected areas where the prevailing local pay level was higher. The average annual salary in 1999 for budget analysts employed by the Federal Government in nonsupervisory, supervisory, and managerial positions was \$52,000.

### Related Occupations

Budget analysts review, analyze, and interpret financial data; make recommendations for the future; and assist in the implementation of new ideas. Workers who use these skills in other occupations include accountants and auditors, economists, financial analysts, financial managers, and loan officers.

### Sources of Additional Information

Information about career opportunities as a budget analyst may be available from your State or local employment service.

Information on acquiring a job as a budget analyst with the Federal Government may be obtained from the Office of Personnel Management through a telephone-based system. Consult your telephone directory under U.S. Government for a local number, or call (912) 757-3000; TDD (912) 744-2299. That number is not tollfree and charges may result. Information also is available from their Internet site: <http://www.usajobs.opm.gov>

## Construction and Building Inspectors

(O\*NET 21908A, 21908B, and 83005B)

### Significant Points

- Local governments, primarily municipal or county building departments, employed nearly 60 percent of these workers.
- Construction and building inspectors tend to be older, more experienced workers who have spent years working in related occupations.

### Nature of the Work

Construction and building inspectors examine the construction, alteration, or repair of buildings, highways and streets, sewer and water systems, dams, bridges, and other structures to ensure compliance with building codes and ordinances, zoning regulations, and contract specifications. Building codes and standards are the primary means by which building construction is regulated in the United States to assure the health and safety of the general public. Inspectors make an initial inspection during the first phase of construction, and follow-up inspections throughout the construction project to monitor compliance with regulations. However, no inspection is ever exactly the same. In areas where certain types of severe weather or natural disasters are more common, inspectors monitor compliance with additional safety regulations designed to protect structures and occupants in these events.

*Building inspectors* inspect the structural quality and general safety of buildings. Some specialize—for example, in structural steel or reinforced concrete structures. Before construction begins, *plan examiners* determine whether the plans for the building or other structure comply with building code regulations, and if they are suited to the engineering and environmental demands of the building site. Inspectors visit the work site before the foundation is poured to inspect the soil condition and positioning and depth of the footings. Later, they return to the site to inspect the foundation after it has been completed. The size and type of structure, as well as the rate of completion, determine the number of other site visits they must make. Upon completion of the project, they make a final comprehensive inspection.

In addition to structural characteristics, a primary concern of building inspectors is fire safety. They inspect structures' fire sprinklers, alarms, and smoke control systems, as well as fire exits. Inspectors assess the type of construction, building contents, adequacy of fire protection equipment, and risks posed by adjoining buildings.

There are many types of inspections and inspectors. *Electrical inspectors* examine the installation of electrical systems and equipment to ensure they function properly and comply with electrical codes and standards. They visit work sites to inspect new and existing sound and security systems, wiring, lighting, motors, and generating equipment. They also inspect the installation of the electrical wiring for heating and air-conditioning systems, appliances, and other components.

*Elevator inspectors* examine lifting and conveying devices such as elevators, escalators, moving sidewalks, lifts and hoists, inclined railways, ski lifts, and amusement rides.

*Mechanical inspectors* inspect the installation of the mechanical components of commercial kitchen appliances, heating and air-conditioning equipment, gasoline and butane tanks, gas and oil piping, and gas-fired and oil-fired appliances. Some specialize in boilers or ventilating equipment as well.

*Plumbing inspectors* examine plumbing systems, including private disposal systems, water supply and distribution systems, plumbing fixtures and traps, and drain, waste, and vent lines.

*Public works inspectors* ensure that Federal, State, and local government construction of water and sewer systems, highways,